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Scottsdale, Arizona 85257 (US)

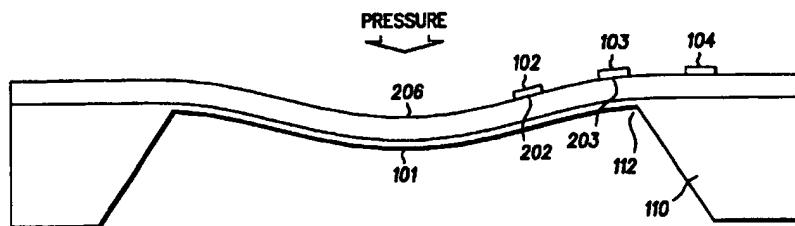
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(74) Representative:  
Gibson, Sarah Jane et al  
Motorola  
European Intellectual Property Operations  
Midpoint  
Alencon Link  
Basingstoke, Hampshire RG21 7PL (GB)(71) Applicant: MOTOROLA, INC.  
Schaumburg, IL 60196 (US)(72) Inventors:  
• Baskett, Ira E.  
Tempe, Arizona 85283 (US)

## (54) Circuit and method of compensating for membrane stress in a sensor

(57) A circuit and method for correcting a sense signal of a sensor (100) where the sense signal is reduced by a negative nonlinear error component introduced by membrane stress in a sensor structure (101). A first transducer (103) is disposed at a location (203) having substantial bending stress to produce a sense signal having a linear component and the nonlinear error component. A second transducer (102) is disposed at a location (202) with substantially zero bending stress to

produce a sense signal having the nonlinear error component but a substantially zero linear component. The sense signal from the second transducer (102) is added to the sense signal from the first transducer (103) to correct the nonlinear error for producing a linear output sense signal ( $V_{OUT}$ ) of the sensor (100) which is representative of the physical condition.



**FIG. 2**

EP 0 833 137 A3



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## EUROPEAN SEARCH REPORT

Application Number  
EP 97 11 6849

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